

METHODS FOR TREATING LOWER URINARY TRACT DISORDERS USING  $\alpha_2\delta$   
SUBUNIT CALCIUM CHANNEL MODULATORS WITH SMOOTH MUSCLE  
MODULATORS

ABSTRACT OF THE DISCLOSURE

A method is provided for using  $\alpha_2\delta$  subunit calcium channel modulators or other  
5 compounds that interact with the  $\alpha_2\delta$  calcium channel subunit in combination with one or  
more compounds with smooth muscle modulatory effects to treat and/or alleviate the  
symptoms associated with painful and non-painful lower urinary tract disorders in normal  
and spinal cord injured patients. According to the present invention,  $\alpha_2\delta$  subunit calcium  
channel modulators include GABA analogs (e.g. gabapentin and pregabalin), fused  
10 bicyclic or tricyclic amino acid analogs of gabapentin, and amino acid compounds.  
Compounds with smooth muscle modulatory effects include antimuscarinics,  $\beta_3$   
adrenergic agonists, spasmolytics, neurokinin receptor antagonists, bradykinin receptor  
antagonists, and nitric oxide donors.

15